

Introduction to HTML and CSS

HTML



CSS



SoftUni Team
Technical Trainers



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1. What is HTML?

- HTML Tags
- Metadata Section
- Indentation & Code Formatting

2. CSS Basic

- CSS Syntax
- Inheritance & Specificity
- CSS Selectors
- CSS Properties



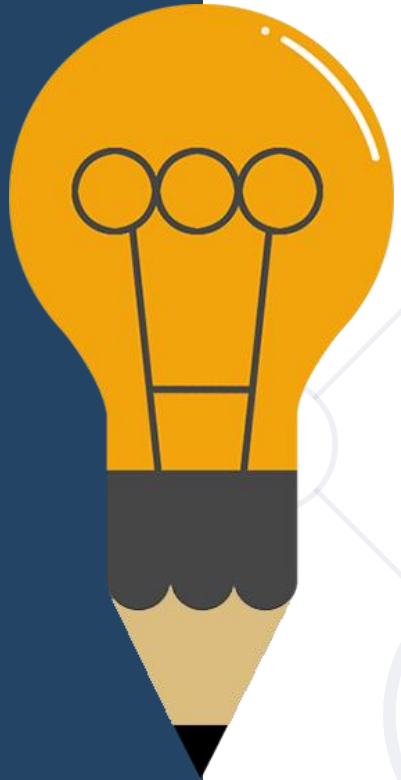
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#HTML-CSS



Introduction to HTML

What is HTML?



- Markup language for **describing web pages**
- A markup language is **a set** of markup tags
- HTML documents contain **HTML tags** and **plain text**
- The tags **describe document content**

HTML Tags

- Keywords surrounded by angle brackets
- Normally come in pairs



```
<html>
  <head>
    <title>Simple HTML document example</title>
  </head>
  <body>
    <h1>Simple HTML document example</h1>
  </body>
</html>
```

Main HTML Tags

- Describes the start and end of the web page/document

```
<html></html>
```

- Describes the start and end of the metadata section of the document

```
<head></head>
```

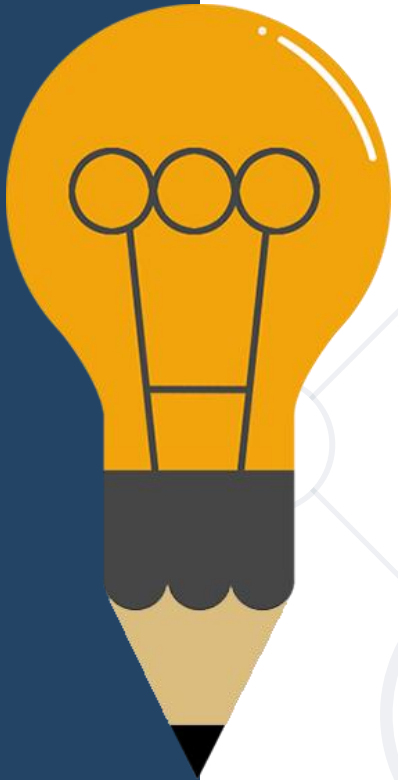
- Describes the start and end of the visible page content

```
<body></body>
```



Common HTML Tags

- headings - **h1, h2, h3...**
- paragraphs - **p**
- forms - **form, fieldset, legend...**
- text formatting - **strong, em**
- links - **a**
- images - **img**
- quotes - **cite, blockquote**
- lists - **ol, ul, dl**
- tables - **table, thead, tbody, tr, th, td**



Tag Attributes



- Tags elements **can have attributes**
- Attributes provide **additional information** about HTML elements
- Attributes are always specified in the start tag
- Attributes come in **name/value pairs**

Tags Examples

- LINKS

```
<a href="http://initlab.org">init Lab</a>
```

- IMAGES

```

```

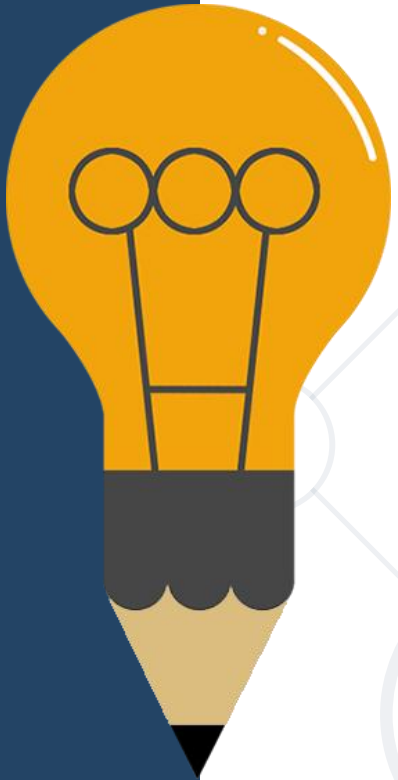
- TABLES

```
<table width="100%" cellpadding="0" cellspacing="0">
```



Metadata Section

- The <head> element - a **container** for all the head elements
- Elements inside <head> can:
 - **include scripts**
 - instruct the browser where to **find style sheets**
 - provide **meta information**
 - and more
- The following tags can be added to the head section:
 - <title>, <style>, <meta>, <link>, <script>, <noscript>



Metadata Example

- The <meta> tag provides additional information about the HTML document



```
<!-- Define keywords for search engines: -->  
<meta name="keywords" content="HTML, CSS, JavaScript">  
<!--Define a description of your web page:-->  
<meta name="description" content="Free Web tutorials">  
<!--Define the author of a page:-->  
<meta name="author" content="Hege Refsnes">  
<!--Refresh document every 30 seconds:-->  
<meta http-equiv="refresh" content="30">
```

- The <link> tag defines the relationship between a document and an external resource.

```
<head>  
  <link rel="stylesheet" type="text/css" href="mystyle.css">  
</head>
```

- The <link> tag is most used to link to style sheets

- Indentation and code formatting is really important!

```
<form action="#" method="get">
  <fieldset>
    <legend>Login information</legend>

    <label for="username">Username</label>
    <p><input type="text" name="usr" id="usr" /></p>

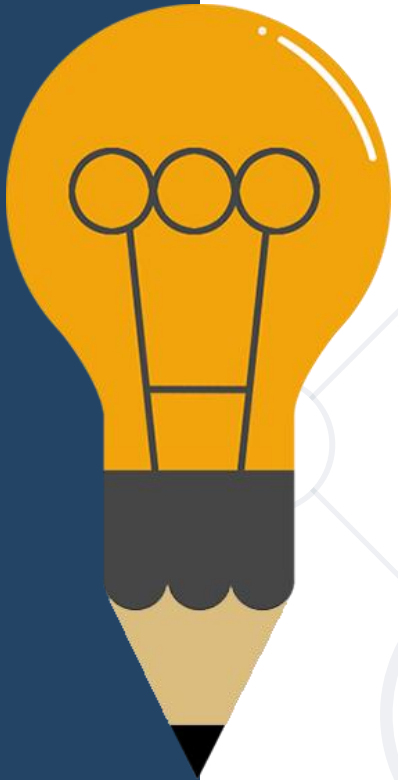
    <label for="password">Password</label>
    <p><input type="text" name="pass" id="pass" /></p>
  </fieldset>
</form>
```



CSS Basics

What is CSS?

- CSS stands for *Cascading Style Sheets*
- Styles define the **visual presentation of HTML** elements
- **Separation** between **semantic content** and **visual presentation** can be achieved
- External visual style guide **shared across all pages** of your site
- Change the style guide - change all pages **visual presentation**



CSS Syntax

- Every CSS document is **a collection of CSS rules**
- CSS rule has two main parts:
 - Selector
 - One or more declarations


```
[selector] {  
  [declaration]  
  [declaration]  
}
```

- Each declaration consists of a property and a value



CSS Selectors


- The selector is a identifier of the HTML element or the group of HTML elements you want to style



```
body {  
  ...  
}
```

CSS Declarations

- Declaration groups are surrounded by **curly brackets**
- Declarations **end with a semicolon**



```
{  
  font: 16px/1.5 Verdana, sans-serif;  
  color: #333;  
}
```

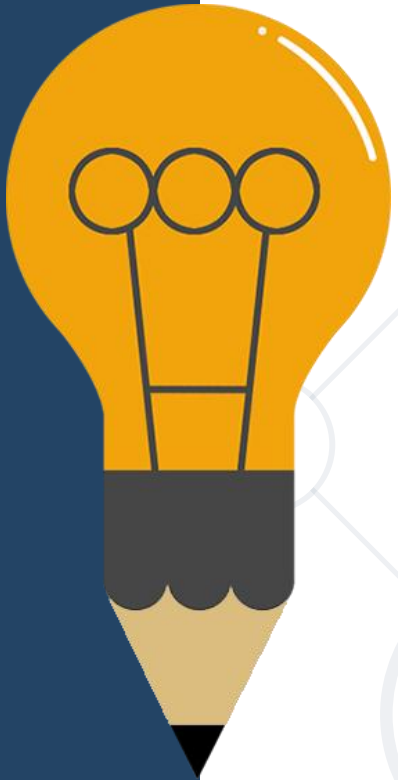
Element Selectors

- Using the HTML tag **names as selectors** will apply styles to **all tags** in the document
- Styling all titles of level 1:

```
h1 {  
    text-align: center;  
    color: #000;  
}
```

- Adding more white space after each paragraph:

```
p {  
    padding-bottom: 15px;  
}
```



The id Selector

- The id selector uses the id attribute of the HTML element, and is defined with a "#"
- Using the id selector will give you the **exact element** you are referring to

```
#header {  
  border: 1px solid #CCC;  
  border-width: 1px 0;  
}
```



The class Selector

- Uses the HTML class attribute, and is defined with a "."
- Allows you to set a particular style for many elements



```
.mod {  
    border-top: 1px solid #000;  
}
```

- You can also specify that only one HTML tag should be affected by a class.

```
p.right {  
    text-align: right;  
}
```

Pseudo-classes

- CSS pseudo-classes are used to add special effects to some selectors

```
selector:pseudo-class {property:value;}
```

- Changing the styles of a link when the user's mouse is over it

```
a:hover {  
  text-decoration: underline;  
  color: #C00;  
}
```



Combining Selectors

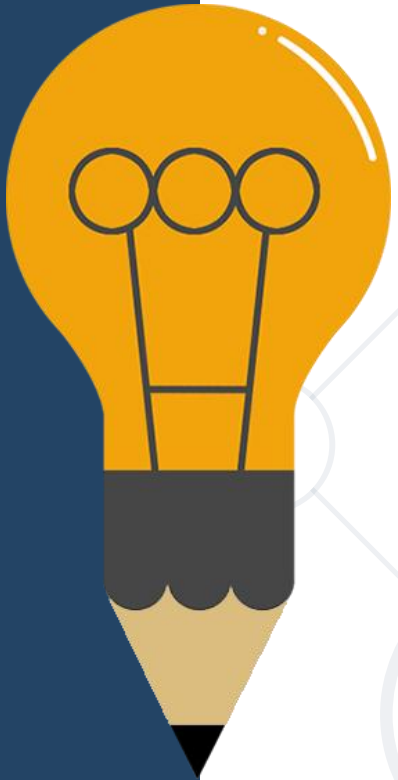


```
<h1 id="header" class="intro">HTML and CSS</h1>
```

```
h1#header.intro {  
  color: #F00;  
  border: 2px solid currentColor;  
}
```


Adding CSS To Our Html Documents

- There are three ways of inserting a style sheet:
 - External style sheet
 - Internal style sheet
 - Inline style

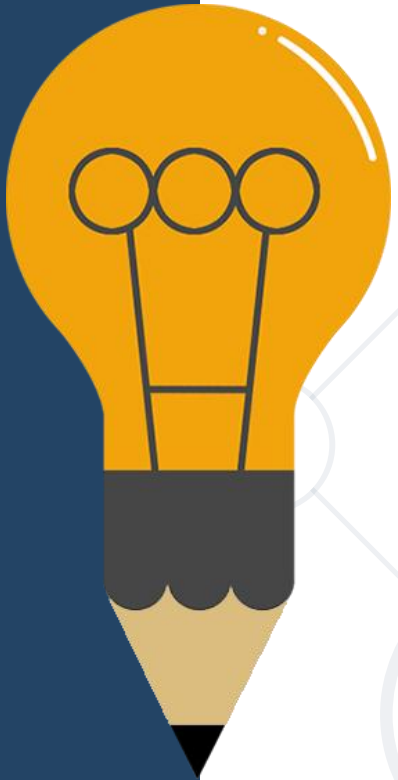


- Ideal when the style is applied to many pages
- You can change the look of an entire Web site by changing one file
- Each page must link to the style sheet using the tag. The tag goes inside the head section:

```
<head>  
    <link rel="stylesheet" type="text/css" href="mystyle.css">  
</head>
```

Internal Style Sheet

- Should be used when a single document has a unique style
- You define **internal** styles in the head section of an HTML page, by using the inline styles
 - Loses many of the advantages of style sheets by **mixing content** with presentation
 - **Use this method sparingly!**



Inheritance & Specificity

- CSS relies heavily on specificity and style overwriting
- In increasing order of priority.
 - External `<link>`
 - In the `<head>`
 - Inline style attribute
 - Using `!important`



SELECTOR PRIORITY (SPECIFICITY)

0

0

0

0

inline styles

of id selectors

of class selectors

of element selectors

`p { color: #FFF; }`

`0, 0, 0, 1`

`.intro { color: #345678; }`

`0, 0, 1, 0`

`#header { color: #000; }`

`0, 1, 0, 0`

`<p style="color: #000;">Text</p>`

`1, 0, 0, 0`

`p { color: #000 !important; }`

God-mode





CSS Properties

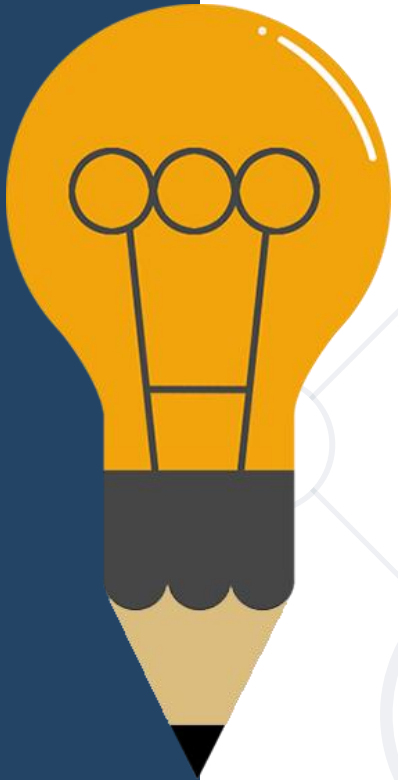
Background

- `background-color: #fff;`
- `background-image: url(../image.png);`
- `background-repeat: repeat | repeat-x | repeat-y | no-repeat;`
- `background-position: top left;`



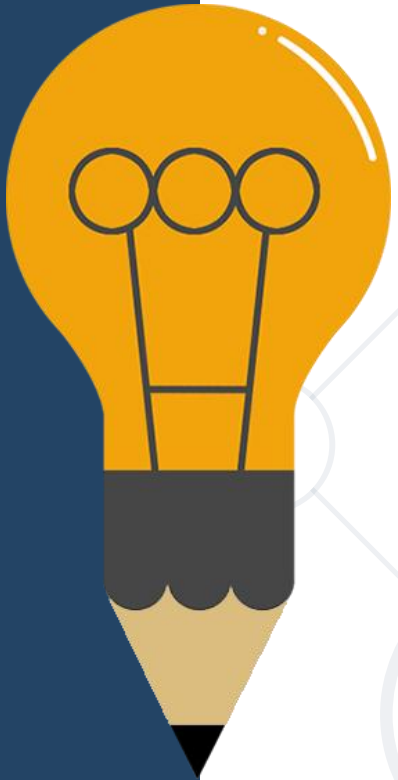
Text

- `color: #000;`
- `text-align: left | right | center | justify;`
- `text-decoration: underline | overline | line-through | none;`
- `text-transform: uppercase | lowercase | capitalize;`
- `text-indent: 50px;`



Font

- `font-family: Verdana, Arial, sans-serif`
- `font-style: italic | normal;`
- `font-size: 16px;`
- `font-weight: bold | normal;`



Border

- `border-style: solid | dotted | dashed | double;`
- `border-color: #C00;`
- `border-width: 2px;`



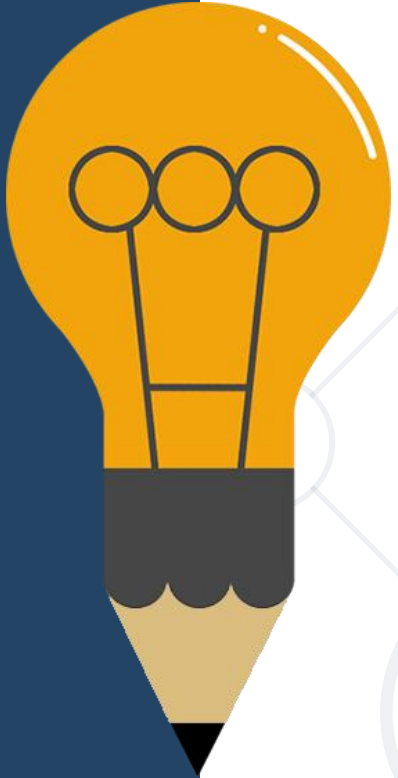
Margin

- `margin-top: 10px;`
- `margin-right: 10px;`
- `margin-bottom: 10px;`
- `margin-left: 10px;`



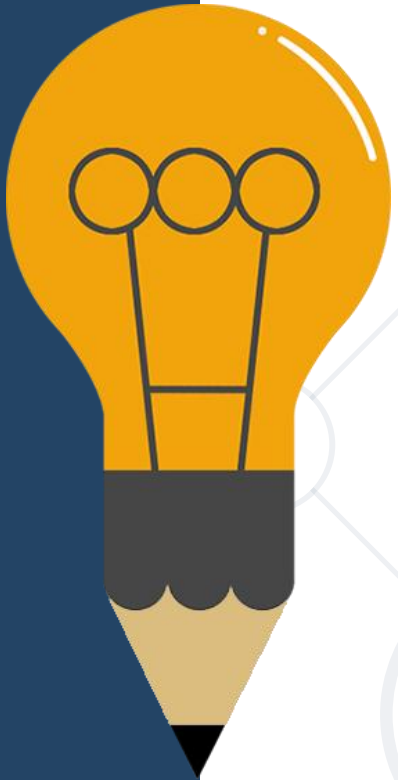
Padding

- `padding-top: 10px;`
- `padding-right: 10px;`
- `padding-bottom: 10px;`
- `padding-left: 10px;`



Lists Styles

- `list-style-type: none | circle | disc;`
- `list-style-position: inside | outside;`
- `list-style-image: url('../image');`





Live Exercises

- HTML - Markup language for **describing web pages**
- CSS **defines the visual presentation** of HTML elements
- CSS **relies heavily on specificity** and style overwriting



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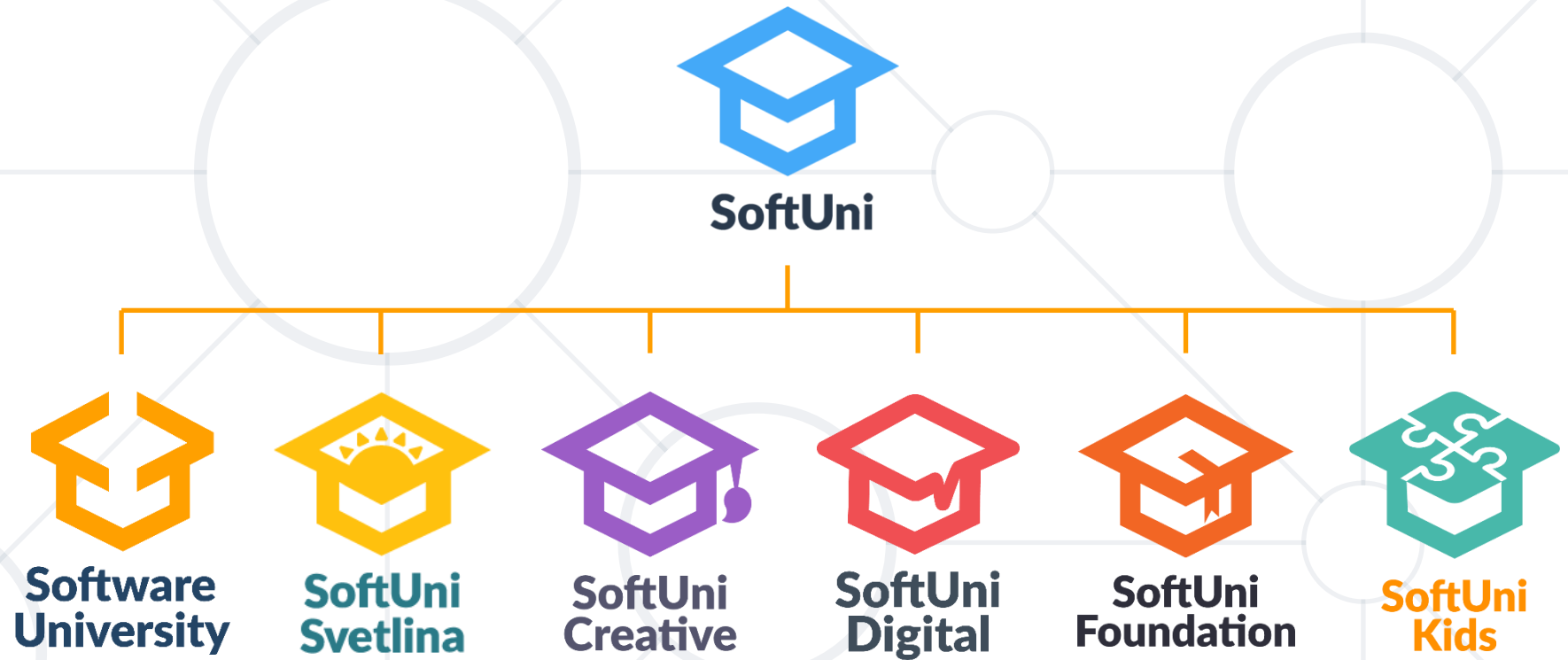
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